




ICF Consulting / Laboratory Data Consultants


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MEMORANDUM

TO: Nancy Riveland-Har
Remedial Project Manager
Site Cleanup Section 4, SFD-7-4

THROUGH: Rose Fong 
ESAT Project Officer
Quality Assurance (QA) Office, PMD-3

FROM: Doug Lindelof 
Data Review and QA Document Review Task Manager
Environmental Services Assistance Team (ESAT)

ESAT Contract No.: 68-W-01-028
Task Order No.: B01
Technical Direction No.: B0105086 Amendment 1

DATE: April 9, 2002

SUBJECT: Tier 1A Cover Memo for Omega Chem OU-2 Site, Case No. 11-BBCO-19.0, SDG Nos. 02B156, 02B166 and 02B190, Water Samples for Dissolved Gases by Method RSK-175.

A limited evaluation of the data package was performed to identify any key analytical issues/deficiencies affecting data quality. This evaluation approach is employed when in-depth data review is not required as indicated by the data user. During this limited evaluation, areas of concern were noted (see Lettered and Additional Comments).

The evaluation included: a review of the data package for completeness; review of the chain of custody forms (against laboratory reported information, for signatures, for sample condition upon receipt by the laboratory and for sample preservation); review of holding times; review of QC summaries; review of blanks for contamination; review of standards data; random check of reported results against raw data; random check of raw data for interference problems or system control problems (e.g. baseline anomalies, baseline drifts, etc.).

The following data quality issues should be noted:

- A. Results denoted with an "L" qualifier are estimated and flagged "J" in Tier 1A Table 1A. Results below the contract required quantitation limits (CRQLs) are considered to be qualitatively acceptable, but quantitatively unreliable, due to the uncertainty in analytical precision near the limit of detection.
- B. Detected results for methane in samples GW102-MW8D-0116, GW102-MW8A-0040, GW102-MW1B-0080, GW102-MW3-0042, GW102-MW10-2009, GW102-MW5-0049 and GW102-MW9A-0032 are qualified as nondetected and estimated and flagged "U,J" in Tier 1A Table 1A due to laboratory method blank contamination.

Additional Comments:

Samples GW102-MW8D-0116, GW102-MW8A-0040, GW102-MW8A-1040, GW102-MW8B-0070, GW102-MW1B-0080, GW102-MW1A-0055, GW102-MW6-0042, GW102-MW10-0057, GW102-MW10-2009 and GW102-MW9B-0054 had a bubble (≤ 6 mm) before extraction. Since the bubble is very small, no significant adverse effect on data quality is expected.

Matrix spike/matrix spike duplicate was not analyzed.

Tier 1A Table 1As are attached.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment.

ANALYTICAL RESULTS

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Case No. : 11-BBCO-19.0 SDG No. : 02B156

Tier 1A Table 1A

Site : Omega Chem OU-2

Lab : EMAX

Reviewer : Santiago Lee, ESAT/LDC

Date : April 9, 2002

QUALIFIED DATA

Concentration in ug/L

Analysis Type: Water Samples for Dissolved Gases
by Method RSK-175

Station Location :															
Sample ID :				GW102-MW8C-0087			GW102-MW8D-0116			GW102-MW8A-0040 D1			GW102-MW8A-1040 D1		
Collection Date :				02/21/2002			02/21/2002			02/20/2002			02/20/2002		
Dilution Factor :				1			1			1			1		
Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Methane	1U			1U	J	B	1U	J	B	1U			1U		
Ethene	1.3U			1.3U			1.3U			1.3U			1.3U		
Ethane	1.2U			1.2U			1.2U			1.2U			1.2U		

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Limit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

NR - Not reported

ANALYTICAL RESULTS

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Case No. : 11-BBCO-19.0 SDG No. : 02B156

Tier 1A Table 1A

Site : Omega Chem OU-2

Lab : EMAX

Reviewer : Santiago Lee, ESAT/LDC

Date : April 9, 2002

QUALIFIED DATA
Concentration in ug/LAnalysis Type: Water Samples for Dissolved Gases
by Method RSK-175

Station Location : Method Blank				CRQL											
Sample ID : MBLK1W															
Collection Date :															
Dilution Factor : 1															
Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Methane	0.22L	J	A	1											
Ethene	1.3U			1.3											
Ethane	1.2U			1.2											

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Limit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

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ANALYTICAL RESULTS

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Case No. : 11-BBCO-19.0 SDG No. : 02B166

Tier 1A Table 1A

Site : Omega Chem OU-2

Lab : EMAX

Reviewer : Santiago Lee, ESAT/LDC

Date : April 9, 2002

QUALIFIED DATA

Concentration in ug/L

Analysis Type: Water Samples for Dissolved Gases
by Method RSK-175

Station Location :				Sample ID : GW102-MW1B-0080			GW102-MW1A-0055			GW102-MW1A-2008 TB			Method Blank MBLK1W			CRQL		
Collection Date :				02/22/2002			02/22/2002			02/22/2002			1					
Dilution Factor :				1			1			1			1					
Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Methane	1U	J	B	1U			1U			0.26L	J	A	1					
Ethene	1.3U			1.3U			1.3U			1.3U			1.3					
Ethane	1.2U			1.2U			1.2U			1.2U			1.2					

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Limit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

NR - Not reported

ANALYTICAL RESULTS

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Case No. : 11-BBCO-19.0 SDG No. : 02B190

Tier 1A Table 1A

Site : Omega Chem OU-2

Lab : EMAX

Reviewer : Santiago Lee, ESAT/LDC

Date : April 9, 2002

QUALIFIED DATA

Concentration in ug/L

Analysis Type: Water Samples for Dissolved Gases
by Method RSK-175

Station Location :				Sample ID : GW102-MW6-0042			GW102-MW3-0042			GW102-MW10-0057			GW102-MW10-2009 TB			GW102-MW5-0049		
Collection Date :				02/25/2002			02/25/2002			02/25/2002			02/25/2002			02/25/2002		
Dilution Factor :				1			1			1			1			1		
Compound				Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Methane				1U			1U	J	B	1U			1U	J	B	1U	J	B
Ethene				1.3U			1.3U			1.3U			1.3U			1.3U		
Ethane				1.2U			1.2U			1.2U			1.2U			1.2U		

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Limit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

NR - Not reported

ANALYTICAL RESULTS

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Case No. : 11-BBCO-19.0 SDG No. : 02B190

Tier 1A Table 1A

Site : Omega Chem OU-2

Lab : EMAX

Reviewer : Santiago Lee, ESAT/LDC

Date : April 9, 2002

QUALIFIED DATA
Concentration in ug/LAnalysis Type: Water Samples for Dissolved Gases
by Method RSK-175

Station Location :				Sample ID :			Collection Date :			Dilution Factor :			Method Blank			CRQL		
GW102-MW2-0055				GW102-MW9A-0032			GW102-MW9B-0054			1			1			1		
Compound				Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Methane				1U			1U	J	B	1U			0.35L	J	A	1		
Ethene				1.3U			1.3U			1.3U			1.3U			1.3		
Ethane				1.2U			1.2U			1.2U			1.2U			1.2		

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Limit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

NR - Not reported

TABLE 1B
DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," February 1994.

- U The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.